

## New Versions of InpGraph – structure and service

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According to Action75 of the NRDC 2013 Meeting the following work has been done on InpGraph development:

- A new version of InpGraph 3.0 with an enhanced interface is under development. We are testing beta version now and preparing it for distribution.
- An update version of InpGraph 2.4 has been issued.

We pay particular attention to the development of InpGraph with the advanced interface. We try to design a convenient intuitive user interface. The base of compiling and processing tools for our digitizer is the same as in the previous version.

We decided to organize a project file to store temporary and initial data for digitizing in a single file. We used XML format in this purpose. Such arrangement provides data integrity and possibility to interrupt and resume the digitizing process.

Let's briefly consider the main functions of the new version of InpGraph.

The first operation is loading of the initial data image. It could be implemented in three ways: open any image format file, paste an image from clipboard or capture a part of screen.

The simple procedures of image processing are provided. Rotation, skewing, editing, adjusting image brightness and contrast, changing color mode are available.

The strong order of digitization is optional now. A user can add any number of abscissa and ordinate axes at any digitizing stage. Every axis has its own name. While digitizing curves a user should select and tie to a curve current axes from the list available.

The axes headings and units are selected from the EXFOR dictionaries according to the EXFOR rules.

The automatic scaling of axes and marking ticks in the handle mode are provided.

Zooming of digitized image and two types of lens are implemented.

Digitizing of asymmetric errors is provided now.

As for program InpGraph 2.4 we took into account the bugs found by ourselves and feedbacks of the users. Special thanks for Marina for the detailed review of InpGraph drawbacks and advices on their overcoming. For the most part her proposals were implemented. We reported about main corrections at the last workshop in Vienna.

Only new additions are listed here.

1. The selection of cursor type is implemented. Three cursor types are available for image area. They are ARROW, CROSS and HAND POINT.

2. Lines along digitizing arrows are drawn after setting their directions.

3. A user could look through the information about quantization errors from the window "Processing Results". The corresponding button is available if information about digitized axes is added during the current input session. The information could be added as free text into selected subentry. A user could look through the result EXFOR file with the help of special window.

The full processing of quantization errors is implemented in the version 3.0 of InpGraph.

In conclusion we'd like to underline the significance of workshops and consulting meetings for programmers and users and to thank the organizers of the last workshop. It helps us to realize the actual user needs in compiling EXFOR software and explain the possibilities of our programs.